

AD-A285 768



APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

AFPEA REPORT NO. 94-R-07
AFPEA PROJECT NO. 93-P-102

JAMES T. STEIGER
Mechanical Engineer
DSN 787-3362
Comm (513) 257-3362
FAX DSN 787-0231

DTIC
ELECTE
OCT 26 1994

94-33158



DTIC QUALITY INSPECTED 2

Defense Ammunition Packaging Council Project J5

Security Seals for Ammunition Containers

AFMC-LSO/LGTP
AIR FORCE PACKAGING EVALUATION ACTIVITY
5215 THURLOW STREET
WRIGHT PATTERSON AFB, OH 45433-1540
October 1994

9410 25 197

NOTICE

When government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related government procurement operation, the United States Government thereby incurs no responsibility whatsoever, and the fact that the government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture use or sell any patented invention that may in any way be related thereto. This report is not to be used in whole or part for advertising or sales purposes.

PROJECT: 93-P-102

TITLE: DAPC J5 -- Security Seals for Ammunition Containers

ABSTRACT

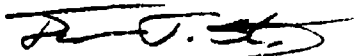
The project that this paper covers is DAPC Project J5, Security Seals for Ammunition Containers. This is a joint-service project managed by the Air Force Packaging Evaluation Activity, Wright-Patterson AFB, OH and coordinated with the US Army, Packaging Division, Picatinny Arsenal, NJ, the Packaging Handling, Storage and Transportation Center at Naval Weapons Station Earle, Colts Neck, NJ, and the US Marine Corps, Naval Surface Warfare Center, at Crane, IN.

This project originated with a requirement from the Air Force Special Operations Command, HQ AFSOC/LGMW, for a security seal that will not create a Foreign Object Damage, FOD, on the flight line.

This project is being combined with the DoD Locks, Safes, Vaults Seals and Containers Program to define what are the users requirements, what seals are available, how the seals should be tested, test the currently available seals, and determine which security seal should be used on which application.

MAN-HOURS: 200

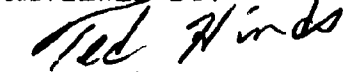
PREPARED BY:


JAMES T. STEIGER
Mechanical Engineer
AF Packaging Eval. Activity

PUBLICATION DATE:

12 OCT 1994

REVIEWED BY:


TED HINDS
Supervisor, Design Group
AF Packaging Eval. Activity

APPROVED BY:

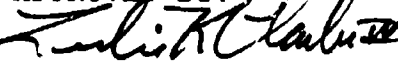

LESLIE K. CLARKE, III
Chief, AF Packaging
Evaluation Activity

TABLE OF CONTENTS

	<u>PAGE</u>
Abstract	1
Table of Contents	ii
Introduction	1
Background	1
FY 94 Accomplishments	1
Discussion	2

APPENDICES

Appendix 1:	Distribution List	3
Appendix 2:	Report Documentation	8

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification:	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

INTRODUCTION:

BACKGROUND:

The Office of the Secretary of Defense (OSD) established the Defense Ammunition Packaging Council (DAPC) to investigate ammunition packaging requirements and perform some basic research and development in an effort to solve some of the problems identified for ammunition. PM-AMMOLOG, Picatinny Arsenal NJ is handling the overall program management for OSD. All LoD services are participating.

Many projects are a part of the DAPC effort. This project will cover DAPC Project J5, "Security Seals for Ammunition Containers." This is a joint-service project managed by the Air Force Packaging Evaluation Activity, Wright-Patterson AFB, OH, with participation from the US Army, Packaging Division, Picatinny Arsenal, NJ, the Packaging, Handling, Storage and Transportability Center at Naval Weapons Station Earle, Colts Neck, NJ, and the US Marine Corps, Naval Surface Warfare Center, Crane, IN.

This project originated with a requirement from the Air Force Special Operations Command, HQ AFSOC/LGMW, for a security seal that will not create a Foreign Object Damage, FOD, on the flight line.

FY 94 ACCOMPLISHMENTS:

We started this project by re-establishing its need. We went back to HQ AFSOC/LGMW to ensure they still have a requirement for a security seal that does not produce FOD. They have been using a paper seal to meet this need, but it has not been meeting all of their requirements. Their basic requirements are: no FOD, inexpensive, easy to use, all types of environments, and no tools required to remove the seal. We also went to the other users to define their requirements.

The requirements for security seals on the different types of ammunition containers were reviewed. This is to ensure that something important is not missed, or left out.

While the requirements were being defined, it was determined the Navy is the lead service for the DoD Locks, Safes, Vaults Seals and Containers Program (DoD Lock Program). This, the DoD Lock Program, is being managed by the Naval Facilities Engineering Service Center at Port Hueneme, CA. This DoD Lock Program is larger than this Security Seal Program, and will accomplish all that we were planning to accomplish. The DoD Lock Program is looking at all types of security seals and tamper-indicating devices, in various applications from simple applications to the "BLACK" program area. The use of security seals to secure ammunition containers is just a small part of this whole program.

At the June 1994 Defense Ammunition Packaging Council Meeting, we presented what we had accomplished to date and information on the DoD Lock Program. We recommended that this project be transferred to the Naval Weapons Station Earle and they in turn would develop a Memorandum of Agreement with the DoD Lock Program. This was accepted by the Defense Ammunition Packaging Council and the funds have been transferred to the Naval Weapons Station Earle.

DISCUSSION:

This project is being combined with the DoD Locks, Safes, Vaults Seals and Containers Program to define what are the users requirements, what seals are available, how the seals should be tested, test the currently available seals, and determine which security seal should be used on which application. The DoD Locks, Safes, Vaults Seals and Containers Program is managed by the Naval Facilities Engineering Service Center at Port Hueneme, CA.

The DoD Lock Program is looking at more than just the security seal problem. They are looking at the whole security system. This includes all the controls, which security seal to use on which application, how to number and control the security seals, how to dispose of used security seals, etc. We the packaging and ammunition communities need to get the security systems people involved with this project along with us. It is recommended that we, the DAPC people, and the users from all the services stay involved with the DoD Lock Program to insure our requirements are met.

DISTRIBUTION LIST

DTIC/FDAC CAMERON STATION ALEXANDRIA VA 22304-6145	1
HQ AFMC/LG WRIGHT-PATTERSON AFB OH 45433-5006	1
HQ AFMC/LGT WRIGHT-PATTERSON AFB OH 45433-5006	1
HQ AFMC/LGTP (LIBRARY) WRIGHT-PATTERSON AFB OH 45433-5540	10
HQ USAF/LGTT WASHINGTON DC 20330	1
654 ABG/LGT 7701 SECOND ST, STE 209 TINKER AFB OK 73145-9100	1
654 ABG/LGTP 7701 SECOND ST, STE 209 TINKER AFB OK 73145-9100	1
649 ABG/LGT BLDG 1135 7973 UTILITY DR HILL AFB UT 84056-5713	1
649 ABG/LGTP 7530 11th ST HILL AFB UT 84056-5707	1
651 ABG/LGT BLDG 1530 410 JACKSON RD KELLY AFB TX 78241-5312	1
651 ABG/LGTP 401 WISON BLVD KELLY AFB TX 78241-5340	1
652 ABG/LGT 1961 IDZOREK ST MCCLELLAN AFB CA 95652-1620	1
652 ABG/LGTP 1961 IDZOREK ST MCCLELLAN AFB CA 95652-1620	1
653 ABG/LGT BLDG 376 455 BYRON ST ROBINS AFB GA 31098-1860	1

DISTRIBUTION LIST (Cont'd)

653 ABG/LGTP BLDG 376 1
455 BYRON ST
ROBINS AFB GA 31098-1860

ASC/AWL 1
WRIGHT-PATTERSON AFB OH 45433

ASC/ALXS 1
WRIGHT-PATTERSON AFB OH 45433-7642

ASC/YJA 1
110 WACISSA RD
SUITE 15
EGLIN AFB FL 32542-5313

GSA OFFICE OF ENGINEERING MGT 1
PACKAGING DIVISION
WASHINGTON DC 20406

COMMANDER 1
ATTN: N KARL (SUP 045)
NAVAL SUPPLY SYSTEMS COMMAND
WASHINGTON DC 20376-5000

COMMANDER 1
ATTN: E PANIGOT (AIR 41212A)
NAVAL AIR SYSTEMS COMMAND
WASHINGTON DC 20361

COMMANDER 1
ATTN: T CORBE (CODE 8218)
SPACE AND NAVAL WARFARE SYSTEMS COMMAND
WASHINGTON DC 20360

ATTN: C MANWARRING (FAC 0644) 1
NAVAL FACILITIES ENGINEERING COMMAND
HOFFMAN BLDG 2 ROOM 12S21
ALEXANDRIA VA 22332

COMMANDING OFFICER 1
ATTN: K POLLOCK (CODE 15611K)
NAVAL CONSTRUCTION BATTALION CENTER
PORT HUENEME CA 93043

COMMANDER 1
NAVAL SEA SYSTEMS COMMAND
ATTN: G MUSTIN (SEA 66P)
WASHINGTON DC 20362

DISTRIBUTION LIST (Cont'd)

COMMANDER ATTN: F BASFORD (SEA 05M3) NAVAL SEA SYSTEMS COMMAND WASHINGTON DC 20362	1
ATTN: E. H. BRIGGS (CODE 0512) NAVAL AVIATION SUPPLY COMMAND 700 ROBBINS AVENUE PHILADELPHIA PA 19111-5098	1
ATTN: F SECHRIST (CODE 0541) NAVY SHIPS PARTS CONTROL CENTER PO BOX 2020 MECHANICSBURG PA 17055-0788	1
COMMANDING OFFICER ATTN: F MAGNIFICO (SESD CODE 9321) NAVAL AIR ENGINEERING CENTER LAKEHURST NJ 08733-5100	1
COMMANDING OFFICER NAVAL WEAPONS STATION EARLE NWHC/CODE 8023 COLTS NECK NJ 07722-5000	1
US AMC PACKAGING STORAGE AND CONTAINERIZATION CENTER/SDSTO-TE-E 16 HAP ARNOLD BLVD TOBYHANNA PA 18466-5097	1
DLSIE/AMXMC-D US ARMY LOGISTICS MGT CTR FT LEE VA 23801-6034	1
ATTN: Mike Ivankoe US ARMY ARDEC/SMCAR-AEP DOVER NJ 07801-5001	1
US ARMY NATICK LABS/STRNC-ES NATICK MA 01760	1
HQ AFMC/LGSH WRIGHT-PATTERSON AFB OH 45433	1
ASC/SDM WRIGHT-PATTERSON AFB OH 45433	1

DISTRIBUTION LIST (Cont'd)

ATTN: DLA-MMDO DEFENSE LOGISTICS AGENCY CAMERON STATION ALEXANDRIA VA 22304-6100	1
ATTN: DLA-AT DEFENSE CONTRACT MANAGEMENT COMMAND CAMERON STATION ALEXANDRIA VA 22304-6190	1
AGMC/DSP NEWARK AFS 43057-5000	1
AMARC/DST DAVIS MONTHAN AFB AZ 85707-5000	1
2750 TRANS/DMTT WRIGHT-PATTERSON AFB OH 45433-5001	1
HQ PACAF/LGTT HICKAM AFB HI 96853-5000	1
HQ USAFE/LGTT APO NEW YORK 09094-5000	1
HQ ACC/LGTT LANGLEY AFB VA 23665-5001	1
HQ AFSPACECOM/LKT PETERSON AFB CO 80914-5000	1
HQ ANGSC/LGTT ANDREWS AFB MD 20331-6008	1
HQ ATC/LGTT RANDOLPH AFB TX 78150-5001	1
AFISC/SEWV NORTON AFB CA 92409-7001	1
HQ AU/LGTT MAXWELL AFB AL 36112-5001	1
HQ AMC/XONC SCOTT AFB IL 62225-5001	1
SCHOOL OF MILITARY PACKAGING TECHNOLOGY ATSZ-MP ABERDEEN PROVING GROUND MD 21005-5001	1

DISTRIBUTION LIST (Cont'd)

HQ USMC (CPP-2) 1
WASHINGTON DC 20380

ATTN: DGSC/QED 1
DEFENSE GENERAL SUPPLY CENTER
8100 JEFFERSON DAVIS HIGHWAY
RICHMOND VA 23297-5000

ATTN: DGSC/OMAD 1
DEFENSE GENERAL SUPPLY CENTER
8100 JEFFERSON DAVIS HIGHWAY
RICHMOND VA 23297-5000

US ARMY ARDEC 1
ANSTA-AR-AL-5
ATTN: MR. AL GALONSKI
PICATINNY ARSENAL NJ 07806-5000

COMMANDING OFFICER 1
NAVAL WEAPONS STATION EARLE
ROUTE 34 SOUTH CODE 5022
ATTN: MR. ROY SMITH
COLTS NECK NJ 07722-5023

COMMANDING OFFICER 1
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361 CODE 4074
ATTN: MR. FRANK NEIHAUS
CRANE IN 47522-5000

US ARMY ARDEC 1
ANSTA-AR-AEP
ATTN: MR. EUGENE FARRELL
PICATINNY ARSENAL NJ 07806-5000

COMMANDING OFFICER 1
NAVAL WEAPONS STATION EARLE
ROUTE 34 SOUTH CODE 5022
ATTN: JIM RAEVIS
COLTS NECK NJ 07722-5023

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Office, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Project (0704-0188), Washington, DC 20503.</small>				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 14 Oct 94	3. REPORT TYPE AND DATES COVERED Final, Jan 94 - Oct 94		
4. TITLE AND SUBTITLE Defense Ammunition Packaging Council Project J5, Security Seals for Ammunition Containers		5. FUNDING NUMBERS		
6. AUTHOR(S) James T. Steiger				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AFMC-LSO/LGTP 5215 Thurlow Street Wright-Patterson AFB, OH 45433-5540		8. PERFORMING ORGANIZATION REPORT NUMBER 94-R-07		
9. SPONSORING MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION AVAILABILITY STATEMENT Approved for public release distribution unlimited.		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) <p>This is a joint-service project managed by the Air Force Packaging Evaluation Activity, Wright-Patterson AFB, OH and coordinated with the USArmy, Packaging Division, the Packaging Handling, Storage and Transportation Center at Naval Weapons Station Earle, and the US Marine Corps, Naval Surface Warfare Center.</p> <p>This project originated with a requirement from the Air Force Special Operations Command, HQ AFSOC/LGMW, for a security seal that will not create a Foreign Object Damage, FOD, on the flight line.</p> <p>This project is being combined with the DoD Locks, Safes, Vaults Seals and Containers Program to define what are the users requirements, what seals are available, how the seals should be tested, test the currently available seals, and determine which security seal should be used on which application.</p>				
14. SUBJECT TERMS Container, Security Seal		15. NUMBER OF PAGES 8		16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	